

# HR580

## Analytics and Reporting in HCM

### EXERCISES AND SOLUTIONS

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Course Duration:

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# Typographic Conventions

American English is the standard used in this handbook.

The following typographic conventions are also used.

|  |   |
|--|---|
| This information is displayed in the instructor's presentation |    |
| Demonstration  |    |
| Procedure  |    |
| Warning or Caution   |    |
| Hint   |   |
| Related or Additional Information                              |  |
| Facilitated Discussion   |  |
| User interface control   | <i>Example text</i>   |
| Window title   | <i>Example text</i>   |

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# Execute a Report from Information Systems

### Business Example

You work in the HR department of your company and require a list of birthdays for employees of a particular region. For this reason, you need to know how to execute reports from information systems.

Create a list of birthdays for all employees in personnel area 1000/Hamburg.



Hint:

Use the evaluation period TODAY unless specified otherwise.

1. Create the list of birthdays by using the *Birthday List* report in the PA Info System.
2. Use the filter function to restrict output to employees who were born in 1965.
3. Use the filter function to restrict output to male employees who were born in 1965.

## Execute a Report from Information Systems

### Business Example

You work in the HR department of your company and require a list of birthdays for employees of a particular region. For this reason, you need to know how to execute reports from information systems.

Create a list of birthdays for all employees in personnel area 1000/Hamburg.



Hint:

Use the evaluation period TODAY unless specified otherwise.

1. Create the list of birthdays by using the *Birthday List* report in the PA Info System.
  - a) On the *SAP Easy Access* screen, choose *Human Resources* → *Personnel Management* → *Administration* → *Info System* → *Reports* → *Employee* → *Birthday List*.
  - b) On the *Birthday List* screen, enter **1000** in the *Personnel Area* field.
  - c) Choose *Execute*.
2. Use the filter function to restrict output to employees who were born in 1965.
  - a) Select the *Year* column.
  - b) Choose the *Set filter* pushbutton.
  - c) In the *Determine values for filter criteria* dialog box, enter **1965** in the *Year of birth* field.
  - d) Choose *Execute*.
3. Use the filter function to restrict output to male employees who were born in 1965.
  - a) Choose *Edit* → *Set filter*.
  - b) In the *Filter* dialog box, add the *Year of birth* and *Gender key* as filter criteria (copy from right to left).
  - c) Choose *Determine values for filter criteria*.
  - d) In the *Determine values for filter criteria* dialog box, enter the following values:

| Field                | Value       |
|----------------------|-------------|
| <i>Year of birth</i> | <b>1965</b> |
| <i>Gender key</i>    | <b>1</b>    |

- e) Choose *Execute*.



# Modify a User Menu

### Business Example

As part of your job, you need to generate reports relating to all employees within the organization. To facilitate the running of these reports, you want to add them to a user menu. For this reason, you need to know how to modify a user menu.

Create a user menu and insert reports in a single role assigned to you with the appropriate authorization.

1. Integrate two reports in the single role T\_HR580\_AG\_## assigned to you as follows:

To access role maintenance, choose *Tools* → *Administration* → *User Maintenance* → *Role Administration* → *Roles (PFCG)*.

Enter your role.

Transfer the following reports or transactions to the role menu:

- ABAP Report: Employee List (RPLMIT00)
- SAP Query: Birthday List of the /SAPQUERY/H2 user group in the global area

To do so, choose *Insert Report* on the *Menu* tab page.

2. Now, generate the appropriate authorization profiles. To do this, access the *Authorizations* tab page, choose *Change authorization data*, and on the next screen, choose *Generate*.

To update your authorizations, access the *User* tab page, enter your user name, and perform a complete user comparison.

3. On the *SAP Easy Access* screen, the user menu is now active and the role is displayed.

## Modify a User Menu

### Business Example

As part of your job, you need to generate reports relating to all employees within the organization. To facilitate the running of these reports, you want to add them to a user menu. For this reason, you need to know how to modify a user menu.

Create a user menu and insert reports in a single role assigned to you with the appropriate authorization.

1. Integrate two reports in the single role **T\_HR580\_AG\_##** assigned to you as follows:

To access role maintenance, choose *Tools* → *Administration* → *User Maintenance* → *Role Administration* → *Roles (PFCG)*.

Enter your role.

Transfer the following reports or transactions to the role menu:

- ABAP Report: Employee List (RPLMIT00)
- SAP Query: Birthday List of the /SAPQUERY/H2 user group in the global area

To do so, choose *Insert Report* on the *Menu* tab page.

- a) On the *SAP Easy Access* screen, choose *Tools* → *Administration* → *User Maintenance* → *Role Administration* → *Roles (PFCG)*.

- b) In the *Role* field, enter **T\_HR580\_AG\_##**.

- c) Choose *Change* and switch to the *Menu* tab page.

- d) Choose *Transaction*.

- e) Choose *Report*.

- f) Select the report type *ABAP Report* and enter the report name **RPLMIT00**. Choose *Enter*.

- g) Choose *Report* again.

- h) Select the report type *SAP Query* and select *Global area*.

- i) Enter user group **/SAPQuery/H2** and select the **BIRTHDAYLIST** query. Select *Choose*.

- j) Choose *Enter*.

- k) Choose *Save*. Confirm any messages by choosing *Enter*.

2. Now, generate the appropriate authorization profiles. To do this, access the *Authorizations* tab page, choose *Change authorization data*, and on the next screen, choose *Generate*.

To update your authorizations, access the *User* tab page, enter your user name, and perform a complete user comparison.

- a) Switch to the *Authorizations* tab page (which still contains a red traffic light) and choose the *Expert Mode for Profile Generation* pushbutton.
  - b) In the *Information* dialog box, choose *Continue*.
  - c) Choose *Save*. In the *Assign Profile Name for Generated Authorization Profile* dialog box, choose *Execute*.
  - d) Choose *Generate*. Accept the default names proposed for the profile and text.
  - e) Choose *Back*. The traffic light on the *Authorizations* tab page is now green. The traffic light on the *User* tab page is red, because the profile you have just created has not yet been compared with the assigned users.
  - f) Switch to the *User* tab page and enter your user ID.
  - g) Choose the *User comparison* pushbutton.
  - h) In the *Compare Role User Master Record* dialog box, choose the *Complete comparison* pushbutton. Confirm any information messages with *Yes*.
  - i) Close the *Compare Role User Master Record* dialog box. This takes you back to the selection screen.
3. On the *SAP Easy Access* screen, the user menu is now active and the role is displayed.
- a) Choose the *User Menu / SAP Menu* pushbuttons to switch from one menu to another.
  - b) To test, choose the *User Menu* pushbutton and check the two new reports that have been added.

# Modify a User Group

### Business Example

You need to create your own queries and save them in your own user group to ensure they are not changed. For this reason, you need to display your own user group and assign the required InfoSets.



Hint:

You work in the default standard area (client-specific). The user group is already set up.

1. Display your user group `HR580##` (`##` is your group number) and assign yourself to it.
2. Assign InfoSets `HR580PNPMINI` and `HR580PNPPCH` to your user group.
3. In your user group, maintain parameter `AQB` (Setting Up User Group) with parameter value `HR580##`.

## Modify a User Group

### Business Example

You need to create your own queries and save them in your own user group to ensure they are not changed. For this reason, you need to display your own user group and assign the required InfoSets.



Hint:

You work in the default standard area (client-specific). The user group is already set up.

1. Display your user group **HR580##** (**##** is your group number) and assign yourself to it.
  - a) On the *SAP Easy Access* screen, choose *Tools* → *ABAP Workbench* → *Utilities* → *SAP Query* → *User Groups* (SQ03).
  - b) On the *User Groups: Initial* screen, choose *Environment* → *Query areas*.
  - c) In the *Work Areas* dialog box, select *Standard area (client-specific)* and choose the *Choose* pushbutton.
  - d) In the *User group* field, enter the name of your user group as **HR580##**, where **##** is the group number.
  - e) Choose the *Display* pushbutton. This will take you to the *User Group HR580##: Display* screen which confirms the setup of your user group. Close this screen.
  - f) Choose the *Assign users and InfoSets* pushbutton. The *User Group HR580##: Assign Users* screen displays.
2. Assign InfoSets **HR580PNPMINI** and **HR580PNPPCH** to your user group.
  - a) On the *User Group HR580##: Assign Users* screen choose the *Assign InfoSets* pushbutton.
  - b) Select the **HR580PNPMINI** and **HR580PNPPCH** InfoSets.
  - c) Save your entries. You can now use Ad Hoc Query to access these InfoSets.
3. In your user group, maintain parameter **AQB** (Setting Up User Group) with parameter value **HR580##**.
  - a) Choose *System* → *User Profile* → *Own Data*.
  - b) On the *Maintain User Profile* screen, choose the *Parameters* tab page.
  - c) In the *Set/Get parameter ID* column, find the parameter **AQB** and in the parameter value field enter **HR580##**.
  - d) Save your entries.

- e) Return to the *SAP Easy Access* screen.

# Transport an InfoSet

### Business Example

You need to work with a global InfoSet in the standard area (client-specific). For this reason, you need to know how to transport an InfoSet.

Switch to the global area (cross-client) and select any standard InfoSet. Use the *Transport InfoSets* option and type MERGE in the import option. Perform an initial test transport and determine whether the required InfoSet is transported.

1. Transport an InfoSet from the global area (cross-client) to the standard area (client-specific).
2. Switch back to the standard query area and rename the InfoSet Standard\_##.
3. Assign the InfoSet to your user group.

## Transport an InfoSet

### Business Example

You need to work with a global InfoSet in the standard area (client-specific). For this reason, you need to know how to transport an InfoSet.

Switch to the global area (cross-client) and select any standard InfoSet. Use the *Transport InfoSets* option and type MERGE in the import option. Perform an initial test transport and determine whether the required InfoSet is transported.

1. Transport an InfoSet from the global area (cross-client) to the standard area (client-specific).
  - a) On the *SAP Easy Access* screen, choose *Tools* → *ABAP Workbench* → *Utilities* → *SAP Query* → *InfoSets (SQ02)*.



**Note:**

Alternatively, you can choose *Human Resources* → *Information System* → *Settings* → *Current Settings* → *SAP Query: Maintain InfoSets*.

- b) To switch to the global query area, choose *Environment* → *Query areas*. The *Work Areas* dialog box, which enables you to select a query area, opens.
    - c) Select *Global area (cross-client)* and choose the *Choose* pushbutton.
    - d) Select any InfoSet from the list and choose *Transports*.
    - e) The *SAP Query: Transport tool* screen displays. In the *Transport Action* selection area, select *Copy Global Area* → *Standard Area* and in the *Transport Option* selection area, select *Transport InfoSets*.
    - f) In the *Import option* field, enter *MERGE*, and in the *InfoSets* field, enter the name of the InfoSet to be transported.
    - g) Select *Test run* and then choose *Execute* to start the transport.
    - h) Check the resulting log to determine whether the InfoSet can be transported. If the transport does not trigger any problems, deselect *Test run*.
    - i) To start the transport, choose *Execute*.
    - j) Return to the *InfoSet: Initial* screen.
  2. Switch back to the standard query area and rename the InfoSet *Standard\_##*.
    - a) To switch to the standard query area, choose *Environment* → *Query areas*. The system displays a dialog box that enables you to select a query area.
    - b) In the *Work Areas* dialog box, select *Standard area (client-specific)* and select *Choose*.



- c) Select the InfoSet you transported from the list.
  - d) Choose *InfoSet* → *Rename*.
  - e) In the *Rename InfoSet* dialog box, enter the new name **Standard\_##** in the *To* field.
  - f) Choose *Continue*.
  - g) You are still in the InfoSet: Initial screen.
3. Assign the InfoSet to your user group.
- a) Choose *Role/User Group Assignment*.
  - b) Select your user group *HR580##*.
  - c) Save your entries.

### Create an InfoSet

#### Business Example

As the HR Analyst, you must provide various reports for managers. You have received a request for reports based on the PNPCE and PCH databases. You need to set up infosets to create the requested reports.

1. Define and generate an InfoSet for Personnel Administration using the logical database PNPCE. The InfoSet is to contain infotypes 0000-0004 and 0006-0008. *Name the new InfoSet: PA\_##*. Assign the InfoSet to your user group.
2. Define and generate an InfoSet for Training and Event Management using the logical database PCH (**name the new InfoSet PE\_##**). Use the object type *Course Type (D)* (or business event type) and infotypes 1000 to 1002. Assign the InfoSet to your user group.
3. Define an InfoSet using the logical database **PNPCE** that enables you to report on Personnel Administration data (infotypes 0000-0002) and output the qualifications held by a person (the name of the new InfoSet is **PAQ\_##**). Assign the InfoSet to your user group.

## Create an InfoSet

### Business Example

As the HR Analyst, you must provide various reports for managers. You have received a request for reports based on the PNPCE and PCH databases. You need to set up infosets to create the requested reports.

1. Define and generate an InfoSet for Personnel Administration using the logical database PNPCE. The InfoSet is to contain infotypes 0000-0004 and 0006-0008. *Name the new InfoSet: **PA\_##***. Assign the InfoSet to your user group.

- a) On the SAP Easy Access screen, choose *Tools → ABAP Workbench → Utilities → SAP Query → nfoSets (SQ02)*.



Note:

Alternatively, you can choose *Human Resources → Information System → Settings → Current → Settings → SAP Query: Maintain InfoSets*.

- b) On the *InfoSet: Initial* screen, in the *InfoSet* field, enter **PA\_##** and choose *Create*. The *InfoSet: Title and Database* screen displays.
  - c) Enter **PA\_##** in the *Name* field.
  - d) In the *Data Source* section, select *Logical database*, enter **PNPCE**, and choose *Continue*. The *Infotype selection for InfoSet PA\_## (Logical database PNPCE)* screen displays.
  - e) From the *Infotype* column, choose the infotypes for the InfoSet (infotypes 0000-0004 and 0006 - 0008). If necessary, use the search icon to find the required infotypes.
  - f) Choose *Continue*. The InfoSet is created and displayed in a selection tree.
  - g) Choose *Generate* and return to the *InfoSet: Initial* screen.
  - h) Choose the *Role/User Group Assignment* pushbutton.
    - i) Select your user group **HR580##** and save your entries.
    - j) Return to the SAP Easy Access screen
2. Define and generate an InfoSet for Training and Event Management using the logical database **PCH** (**name the new InfoSet **PE\_##****). Use the object type *Course Type (D)* (or business event type) and infotypes 1000 to 1002. Assign the InfoSet to your user group.
    - a) On the SAP Easy Access screen, choose *Tools → ABAP Workbench → Utilities → SAP Query → InfoSets*.



Note:

Alternatively, you can choose *Human Resources → Information System → Settings → Current Settings → SAP Query: Maintain InfoSets*.

- b) On the *InfoSet: Initial* screen, enter **PE\_##** in the *InfoSet* field.
  - c) Choose *Create*.
  - d) In the *InfoSet : Title and Database* screen, enter **PE\_##**.
  - e) In the *Data Source* section, select *Logical database* and enter **PCH** in the field.
  - f) Choose *Continue*.
  - g) In the *Infotype selection for InfoSet PE\_## (Logical database PCH)* screen, choose the *Determine object type* pushbutton. Choose the object type *Course Type* and the infotypes *1000 to 1002*. Choose *Continue*. The InfoSet is created and displayed in a selection tree.
  - h) On the *Change InfoSet PE\_##* screen, choose *Generate* and return to the *InfoSet: Initial* screen.
  - i) Choose the *Role/User Group Assignment* pushbutton, select your user group **HR580##**, and save your entries.  
Return to the *SAP Easy Access* screen.
3. Define an InfoSet using the logical database **PNPCE** that enables you to report on Personnel Administration data (infotypes 0000-0002) and output the qualifications held by a person (the name of the new InfoSet is **PAQ\_##**). Assign the InfoSet to your user group.
- a) On the *SAP Easy Access* screen, choose *Tools → ABAP Workbench → Utilities → SAP Query → InfoSets*.



Note:

Alternatively, you can choose *Human Resources → Information System → Settings → Current Settings → SAP Query: Maintain InfoSets*.

- b) In the *InfoSet: Initial* screen, in the *InfoSet* field, enter **PAQ\_##**, and choose *Create*.
- c) In the *InfoSet: Title and Database* screen, enter **PAQ\_##**.
- d) In the *Data Source* section, select *Logical database* and enter **PNPCE**.
- e) Choose *Continue*.
- f) In the *Infotype selection for InfoSet PAQ\_## (Logical database PNPCE)*, choose infotypes *0000 to 0002* from the *Core Employee Info* folder. Open the *Infotypes of related objects* folder and open the *Qualification* folder.
- g) From the *Qualification* folder, open *Fulfil* and select *Object (1000)*.
- h) Choose *Continue*. The InfoSet is created and displayed in a selection tree.

- i) On the *Change InfoSet PAQ\_##* screen, choose *Generate* and return to the *InfoSet: Initial* screen.
- j) Choose the *Role/User Group Assignment* pushbutton, select your user group *HR580##*, and save your entries.  
Return to the *SAP Easy Access* screen.

# Copy an InfoSet

### Business Example

You need to generate a new report which is to be based on a copy of an existing InfoSet.

You need to make a copy of an InfoSet and then add infotypes to it.

1. Make a copy of InfoSet **PA\_##** and rename it **PA2\_##**. Add infotypes 0009-0012 to it. Assign the InfoSet to your user group.
2. Change the names of some of the field groups by including the infotype numbers in the name of the field group.

## Copy an InfoSet

### Business Example

You need to generate a new report which is to be based on a copy of an existing InfoSet.

You need to make a copy of an InfoSet and then add infotypes to it.

1. Make a copy of InfoSet **PA\_##** and rename it **PA2\_##**. Add infotypes 0009-0012 to it. Assign the InfoSet to your user group.
  - a) On the *SAP Easy Access* screen, choose *Tools* → *ABAP Workbench* → *Utilities* → *SAP Query* → *InfoSets* (SQ02).



Note:

Alternatively, you can choose *Human Resources* → *Information System* → *Settings* → *Current Settings* → *SAP Query: Maintain InfoSets*.

- b) On the *InfoSet: Initial* screen, in the *InfoSet* field, enter **PA\_##** and choose *Copy*.
  - c) In the *To* field of the *Copy an InfoSet* dialog box, enter **PA2\_##** and choose *Continue*.
  - d) Select the copied InfoSet **PA2\_##** and choose *Change*.
  - e) On the *Change InfoSet PA2\_##* screen, choose *Edit* → *Change Info-type Selection*.
  - f) On the *Infotype selection for InfoSet PA2\_## (Logical database PNPCE)* screen, choose the infotypes that you want to add (0009 to 0012).
  - g) Choose *Continue*. The InfoSet is enhanced by the selected infotypes.
  - h) On the *Change InfoSet PA2\_##* screen, choose *Generate* and return to the *InfoSet Initial* screen.
  - i) Choose the *Role/User Group Assignment* pushbutton and select your user group **HR580##**. Save your entries.
2. Change the names of some of the field groups by including the infotype numbers in the name of the field group.
  - a) Return to the *InfoSet: Initial* screen.
  - b) Choose *InfoSet PA2\_##* and then choose *Change*.
  - c) In the *Field Group data fields* section of the screen, choose the field group that you want to change.
  - d) Right-click the field group and choose *Change Field Group*. On the *Changing Field Groups* screen, add the infotype numbers to the required infotypes in the *Description* field.

Choose *Continue*.

e) Save your entries.

f) Choose *Generate*.

Return to the *SAP Easy Access* screen.



### Create a Simple Query

#### Business Example

You need to use Ad Hoc Query to define your own reports and make them available to other colleagues.

You require a query that allows you to report on all employees according to the year in which they were born. The query should display the following data for employees in the specified order:



- Personnel number
  - Last name
  - First name
  - Personnel area (as value and text)
1. Report on how many employees were born in 1965 by selecting the relevant employees. Save your query with the name GR##\_AHQ\_1
  2. Display the list of employees. Select any two employees and branch to master data.
  3. Delete these two employees from the list of selected employees.

What effect does this have on the number of hits?

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4. Start the output.

## Create a Simple Query

### Business Example

You need to use Ad Hoc Query to define your own reports and make them available to other colleagues.

You require a query that allows you to report on all employees according to the year in which they were born. The query should display the following data for employees in the specified order:



- Personnel number
  - Last name
  - First name
  - Personnel area (as value and text)
1. Report on how many employees were born in 1965 by selecting the relevant employees. Save your query with the name GR##\_AHQ\_1
    - a) On the *SAP Easy Access* screen, choose *Human Resources* → *Information System* → *Reporting Tools* → *Ad Hoc Query*.
    - b) Choose *Query* → *New*.
    - c) On the *Environment* section of the *Create New Query – InfoSet Selection* screen, choose *Standard area (client-specific)* in the *Work area* field. In the *User Group* field, choose *HR580##\_*. In the *InfoSet* section of the screen, choose *PA\_##\_* and choose *Continue*.
    - d) Select *Reporting Period: Today*.
    - e) In the *Field group/fields* section of the screen, open the *Actions* folder. Select the *Personnel Number* field as an output field. Right mouse click choose *Output* → *Only Value*.
    - f) In the *Field group/fields* section of the screen, open the *Personal Data* folder. Select the *Last Name* and *First Name* fields as output fields. Select the *Year of Birth* field as a selection field.
    - g) In the *Field group/fields* section of the screen, open the *Organizational Assignment* folder. Select the *Personnel Area* field as an output field. In the output field for *Personnel Area*, right-click to choose *Output* → *Value and text*.

If required, to change the sequence of the columns in the output preview, select one column at a time and use drag and drop to drag the column to the desired position.
    - h) Enter **1965** in the *Value* column of the *Year of Birth* field name. Start the selection by choosing the *Hit List pushbutton*.

In the neighboring field, the number of selected persons is displayed.

2. Display the list of employees. Select any two employees and branch to master data.
  - a) Display the list of selected employees using the *Display hit list* (pushbutton next to the hit list). To branch to HR master data, select the required person and choose the *HR master data pushbutton*.
3. Delete these two employees from the list of selected employees.

What effect does this have on the number of hits?

To delete an employee from the list, select the relevant person and choose the *Delete* pushbutton. The number of hits is reduced by the number of persons you deleted from the list. Choose *Continue*.

---

4. Start the output.
  - a) To start the output, choose the *Start Output* pushbutton.
  - b) Return to the *InfoSet Query (Query Group HR580##)* screen and choose *Query → Save As*. On the Save Query screen, enter GR##\_AHQ\_1 in the name and title fields and choose Continue.

# Create a Query with Multiple Selections

### Business Example

You need to use Ad Hoc Query to define your own reports with multiple selections.

Enhance the query you created in the Create a Simple Query exercise so that it determines which employees were born between 1965 and 1967 and have two or more children. Display the exact number of children they have.

1. Report on how many employees fulfill these criteria by selecting the employees.



Hint:

Extend the query you created in the Create a Simple Query exercise. Save your query with the name **GR##\_AHQ\_2**.

2. Start output and save this query under the name **GR##\_AHQ\_2**.

## Create a Query with Multiple Selections

### Business Example

You need to use Ad Hoc Query to define your own reports with multiple selections.

Enhance the query you created in the Create a Simple Query exercise so that it determines which employees were born between 1965 and 1967 and have two or more children. Display the exact number of children they have.

1. Report on how many employees fulfill these criteria by selecting the employees.



Hint:

Extend the query you created in the Create a Simple Query exercise. Save your query with the name **GR##\_AHQ\_2**.

- a) On the *InfoSet Query (Query Group HR580##)* screen, in the *Personal Data* field group, choose *Number of Children* as a selection field and an output field.
  - b) For the *Year of Birth* field name, choose the *Further Values* pushbutton. On the *Select Ranges* tab page of the *Multiple Selection* screen, enter a *Lower limit* of **1965** and an *Upper limit* of **1967**. Choose *Copy*.
  - c) For the *Number of Children* field name, choose the *Option* pushbutton. In the *Maintain Selection Options* screen, choose *Greater than or Equal to*. Choose *Continue*.
  - d) In the neighboring *Value* field, enter **2**.
  - e) Start the selection by choosing the *Hit list* pushbutton. In the neighboring field, the number of selected persons is displayed.
2. Start output and save this query under the name **GR##\_AHQ\_2**.
    - a) To start the output, choose the *Output* pushbutton.
    - b) Return to the *InfoSet Query (Query Group HR580##)* screen and choose *Query → Save As*. On the *Save Query* screen, enter **GR##\_AHQ\_2** in the *Name* and *Title* fields and choose *Continue*.

# Create a Query Using the Organizational Structure for Selection

### Business Example

You need to use Ad Hoc Query to define your own reports using the organizational structure for selection.

Define a new query that allows you to report on all employees who belong to the *Human Resources (D)* (in *IDES AG*, this is in the area *Exec. Director - Germany*) organizational unit. Select using the *Organizational Structure*. Display the following data for the selected persons:



- Last name
- First name
- Organizational unit

1. Start output. Save this query with the name **GR##\_AHQ\_3**.

# Create a Query Using the Organizational Structure for Selection

## Business Example

You need to use Ad Hoc Query to define your own reports using the organizational structure for selection.

Define a new query that allows you to report on all employees who belong to the *Human Resources (D)* (in *IDES AG*, this is in the area *Exec. Director - Germany*) organizational unit. Select using the *Organizational Structure*. Display the following data for the selected persons:



- Last name
- First name
- Organizational unit

1. Start output. Save this query with the name **GR##\_AHQ\_3**.
  - a) To create a new query, choose *Query* → *New*.
  - b) On the *Create New Query – InfoSet Selection* screen, Choose the InfoSet *PA\_##* and choose *Continue* (The User Group and Work area are entered by default).
  - c) To make a selection using the organizational structure, choose the *Reporting Set: Unrestricted* pushbutton and then choose the *No. of Hits* pushbutton. From the values displayed, choose *Persons along organizational structure*.
  - d) To display the organizational structure, choose *Persons along organizational structure*. Chose the *Filter* icon. In the *Choose Organizational Unit* screen, navigate by choosing *IDES AG* → *Exec. directory Germany* and choose the checkbox *Human Resources (D)* and choose *Continue*.



#### Note:

All employees who belong to this organizational unit, including those assigned to the subordinate organizational units, are selected. They are available as a reporting set for additional reports or for display.

- e) In the *Field group/fields* section, open the *Personal data* field group and select *Last Name* and *First Name* as output fields.
- f) In the *Field group/fields* section, open the *Organizational Assignment* field group and select *Organizational Unit* as an output field.
- g) Choose the *Hit list* pushbutton and then choose the *Output* pushbutton.

- h) Return to the InfoSet Query (Query Group HR580##) screen, and choose *Query* → *Save As*. Enter the name **GR##\_AHQ\_3** in the Name and Title fields and choose Continue.
- i) Return to the *SAP Easy Access* screen.



# Create a Report with a Specific Reporting Period

### Business Example

You need reports for HR master with a specific reporting period because your requirements are not met by any of the standard reports.

Create a standard employee list report by using the Ad Hoc Query.

1. Define a new query using the InfoSet PA\_##, the *Standard area (client-specific)* work area, and the **HR580##** user group. The query must enable you to determine which employees in personnel area **CABB** were hired to work on special projects in 1999 (*Action type* 01, *Reason for action* 05). The list must include the personnel number, first name, last name, and entry date. Use *Other period* as the reporting period (01 January 1999 to 31 December 1999). Save your query with the name GR##\_AHQ\_4.

## Create a Report with a Specific Reporting Period

### Business Example

You need reports for HR master with a specific reporting period because your requirements are not met by any of the standard reports.

Create a standard employee list report by using the Ad Hoc Query.

1. Define a new query using the InfoSet PA\_##, the *Standard area (client-specific)* work area, and the **HR580##** user group. The query must enable you to determine which employees in personnel area **CABB** were hired to work on special projects in 1999 (*Action type* 01, *Reason for action* 05). The list must include the personnel number, first name, last name, and entry date. Use *Other period* as the reporting period (01 January 1999 to 31 December 1999). Save your query with the name GR##\_AHQ\_4.
  - a) On the *SAP Easy Access* screen, choose *Human Resources* → *Information System* → *Reporting Tools* → *Ad Hoc Query*.
  - b) On the *InfoSet Query* screen, choose *Query* → *New*. On the *Create New Query – InfoSet Selection* screen, choose **Standard area (client-specific)** in the *Work Area* field and choose **HR580##** in the *User Group* field. Choose the InfoSet PA\_## and choose *Continue*.
  - c) In the *Field group/fields* section, open the *Personal data* field group, and select *Last Name* and *First Name* as output fields.
  - d) Open the *Actions* field group and select *Entry Date* as a *selection field* and output field and the *Action Type* and *Reason for Action* as selection fields.
  - e) Open the *Organizational Assignment* field group and select *Personnel Area* as a selection field.
  - f) Enter the following values:

| Field Name        | Value                    |
|-------------------|--------------------------|
| Personnel Area    | CABB                     |
| Action type       | 01 Hire                  |
| Entry date        | 01.01.1999 to 12.31.1999 |
| Reason for action | 05 (special projects)    |

- g) Select the *Reporting Period* pushbutton and choose *Other Period*. Enter **01.01.1999** and **12.31.1999**. To select the appropriate persons, choose the *Hit list* pushbutton.
  - h) Choose *Output*.

Return to the *InfoSet Query (Query Group HR580##)* screen and choose *Query → Save As*. On the Save Query screen, enter GR##\_AHQ\_4 in the Name and Title fields and choose Continue.

- i) Return to the *SAP Easy Access* screen.

# Create a Statistical Report

### Business Example

You need special statistical reports for HR master data because your requirements are not met by any of the standard reports.

Define a new query that allows you to report on all employees who belong to personnel area 1300, Frankfurt. Use the personnel area to select objects in this exercise; do not select objects through the organizational structure. Save your query with the name GR##\_AHQ\_5.



Hint:

- Work in the *Standard area (client-specific)* in your user group HR580## for these exercises.
- Use InfoSet PA\_## unless instructed otherwise. Use Today as the reporting period unless instructed otherwise.

1. Display statistics that show how many employees belong to *Personnel Area 1300*.

## Create a Statistical Report

### Business Example

You need special statistical reports for HR master data because your requirements are not met by any of the standard reports.

Define a new query that allows you to report on all employees who belong to personnel area 1300, Frankfurt. Use the personnel area to select objects in this exercise; do not select objects through the organizational structure. Save your query with the name GR##\_AHQ\_5.



Hint:

- Work in the *Standard area (client-specific)* in your user group HR580## for these exercises.
- Use InfoSet PA\_## unless instructed otherwise. Use Today as the reporting period unless instructed otherwise.

1. Display statistics that show how many employees belong to *Personnel Area 1300*.
  - a) On the *SAP Easy Access* screen, choose *Human Resources* → *Information System* → *Reporting Tools* → *Ad Hoc Query*.
  - b) To create a new query, choose *Query* → *New*.
  - c) On the *Create New Query: InfoSet Selection* screen, the work area and user group are entered by default. Choose the InfoSet PA\_##. Choose *Continue*.
  - d) In the *Field group/fields* section, open the *Organizational Assignment* field group. Select *Personnel Area* as selection field and output field. Enter 1300 in the *Value* field of the *Personnel Area* field name. Start the selection by choosing the *Hit list* pushbutton.
  - e) In the *Organizational Assignment* field group, select *Personnel Subarea* as an output field.
  - f) Choose *Edit* → *Settings*. In the *Setting* dialog box, on the *Output* tab page, choose *Statistics* as the *Type of output list*.
  - g) Choose *Continue*.
  - h) Choose the *Output* pushbutton.
  - i) Return to the *InfoSet Query (Query Group HR580##)* screen and choose *Query* → *Save As*. On the *Save Query* screen, enter GR##\_AHQ\_5 in the *Name* and *Title* fields and choose *Continue*.

# Generate a Report with a Ranked List

### Business Example

You need special reports with a ranked list of HR master data by using Ad Hoc Query.

Define a new query that allows you to report on all employees who belong to the personnel area 1300, Frankfurt. Use the personnel area to select objects in this exercise; do not select objects through the organizational structure. Save your query with the name GR##\_AHQ\_6.

1. Display a ranked list that specifies the five most common cities of residence for employees who belong to personnel area 1300. Save this query under the name **GR##\_AHQ\_6**. Display the Ranked List option. Which is the most popular city and which is the second most popular city in the ranked list?

## Generate a Report with a Ranked List

### Business Example

You need special reports with a ranked list of HR master data by using Ad Hoc Query.

Define a new query that allows you to report on all employees who belong to the personnel area 1300, Frankfurt. Use the personnel area to select objects in this exercise; do not select objects through the organizational structure. Save your query with the name GR##\_AHQ\_6.

1. Display a ranked list that specifies the five most common cities of residence for employees who belong to personnel area 1300. Save this query under the name **GR##\_AHQ\_6**. Display the Ranked List option. Which is the most popular city and which is the second most popular city in the ranked list?
  - a) Go to the initial screen of the Ad Hoc Query for your last query. Delete the *Personnel Subarea* output field.
  - b) In the *Field group/fields* section, open the *Addresses* field group and select *City* as an output field.
  - c) Choose *Edit* → *Settings*.
  - d) In the *Settings* dialog box, choose the *Output* tab page. Choose *Ranked List* as the *Type of output list*.
  - e) On the *Stats/ranked List* tab page, enter the specified number of rankings as **5**.
  - f) Choose *Continue*.
  - g) Choose *Output*.
  - h) Return to the *InfoSet Query* screen, choose *Query* → *Save As* and enter the name **GR##\_AHQ\_6** to save the query.
  - i) Remain on this screen.

# Create a Query with an InfoSet from Logical Databases PNPCE and PCH

### Business Example

You need to prepare reports for HR Master data based on InfoSets from the Logical Databases PNPCE and PCH by using Ad Hoc Query.

1. Change to InfoSet PAQ\_## for this exercise. Output a list of employees who belong to personnel area 1000, Hamburg. The list should contain the following information:
  - Personnel number
  - Last name
  - First name
  - Qualification (Name)



Hint:

Sort the list according to last name or qualification. Save the query as **GR##\_AHQ\_7**.



## Create a Query with an InfoSet from Logical Databases PNPCE and PCH

### Business Example

You need to prepare reports for HR Master data based on InfoSets from the Logical Databases PNPCE and PCH by using Ad Hoc Query.

1. Change to InfoSet PAQ\_## for this exercise. Output a list of employees who belong to personnel area 1000, Hamburg. The list should contain the following information:
  - Personnel number
  - Last name
  - First name
  - Qualification (Name)



Hint:  
Sort the list according to last name or qualification. Save the query as **GR##\_AHQ\_7**.

- a) To switch InfoSets, choose *Query* → *New*. The *Create New Query – InfoSet Selection* dialog box appears.
- b) Select InfoSet PAQ\_##.
- c) Choose *Continue*. The selected InfoSet is displayed in the selection tree and you can use it to define queries.
- d) In the *Field group/fields* section, open the *Organizational Assignment* field group and select *Personnel Area* as a selection field. In the *Value* field for the *Personnel Area* field name, enter **1000**.
- e) Open the *Personal Data* field group and select *Last Name* and *First Name* as output fields.
- f) Open the *Qualification* field group and select the *Qualification Name (Name)* as an output field. Check the sequence of output fields in the output preview. If necessary, add the *Personnel Number (Only Value)* as the first column.
- g) Choose *Output*. Return to the PAQ\_## screen.
- h) Save this query by choosing *Query* → *Save as* and in the *Save Query* dialog box, enter the name **GR##\_AHQ\_7** and choose *Continue*.
- i) Return to the *SAP Easy Access* screen.

# Create a Report by Copying the Reporting Set Hit List

## Business Example

As part of your job, you need to create special reports for specific employees of a personnel area. For this reason, you must know how to define these reports by copying the Reporting Set Hit List.

Create a report by copying the hit list so that you can report only on employees in *personnel area 1000* Hamburg. The query must display the following data in the specified order:

- Personnel number
- Last name
- First name
- Nationality
- Age of employee



### Hint:

- Work in the *Standard area (client-specific)* in your user group **HR580##** for this exercise.
- Use InfoSet PA\_## unless instructed otherwise. Use today's date as the reporting period unless instructed otherwise.

1. Select all employees from *personnel area 1000*. How many employees does this include?
2. For performance reasons, use this set of persons as the reporting set. From this group of persons, select all employees whose nationality is *French (FR)* or *Swiss (CH)*. How many employees does this include?
3. Start *output* and sort the output list according to nationality.
4. Return to the *InfoSet Query (Query: GR##\_AHQ\_2)* screen and change the sequence of columns in the output preview as follows:
  - Age of employee
  - Nationality
  - Last name

- First name
  - Personnel number
5. Use the *output preview* to sort the list according to *Nationality* (first sorting criterion) and *Age of employee* (second sorting criterion). Choose *Spreadsheet (MS Excel)* as the output form and then choose *Standard List*. Start the output and note the differences.
  6. Save this query under the name GR##\_AHQ\_8.

## Create a Report by Copying the Reporting Set Hit List

### Business Example

As part of your job, you need to create special reports for specific employees of a personnel area. For this reason, you must know how to define these reports by copying the Reporting Set Hit List.

Create a report by copying the hit list so that you can report only on employees in *personnel area 1000* Hamburg. The query must display the following data in the specified order:

- Personnel number
- Last name
- First name
- Nationality
- Age of employee



#### Hint:

- Work in the *Standard area (client-specific)* in your user group **HR580##** for this exercise.
- Use InfoSet PA\_## unless instructed otherwise. Use today's date as the reporting period unless instructed otherwise.

1. Select all employees from *personnel area 1000*. How many employees does this include?

a) Extend the query *GR##\_AHQ\_2* as follows:

On the *SAP Easy Access* screen, choose *Human Resources* → *Information System* → *Reporting Tools* → *Ad Hoc Query*.

b) To open an existing query, choose *Query* → *Open*.

In the *Open Query* dialog box, choose the *GR##\_AHQ\_2* query and the choose *Continue*.

a) In the *Personal Data* field group, deselect *Year of Birth* as a selection field and deselect *Number of Children* as selection and output fields.

b) In the *Organizational Assignment* field group, deselect *Personnel Area* as an output field and select the *Personnel Area* field as a selection field

- c) In the *Personal Data* field group, select the *Nationality* and *Age of Employee* as output fields.
  - d) In the *Value* field for *Personnel Area* enter **1000** and choose the *Hit list* pushbutton. In the neighboring field, the number of selected persons is displayed.
2. For performance reasons, use this set of persons as the reporting set. From this group of persons, select all employees whose nationality is *French (FR)* or *Swiss (CH)*. How many employees does this include?
  - a) To use the selected number of persons as the reporting set, choose *No. of hits* in the *Reporting set* area.
  - b) In the *Personal Data* field group, select *Nationality* as a selection field.
  - c) Access the *Multiple selection* screen for the *Nationality* selection field and enter the values, **FR** and **CH** on the *Select Single Values* tab page and choose *Copy*.
  - d) Choose the *Hit list* pushbutton and in the neighboring field, the number of selected persons is displayed.
3. Start *output* and sort the output list according to nationality.
  - a) Choose the *Output* pushbutton.
  - b) In the output list, select the *Nationality* column.
  - c) Choose the *Sort in Ascending Order* or *Sort in Descending Order* pushbutton.
4. Return to the *InfoSet Query (Query: GR##\_AHQ\_2)* screen and change the sequence of columns in the output preview as follows:
  - Age of employee
  - Nationality
  - Last name
  - First name
  - Personnel number
  - a) Go back to the *InfoSet Query (Query: GR##\_AHQ\_2)* screen.
  - b) Change the sequence of columns in the output preview by choosing one column at a time and using drag and drop to drag the column to the desired position.
5. Use the *output preview* to sort the list according to *Nationality* (first sorting criterion) and *Age of employee* (second sorting criterion). Choose *Spreadsheet (MS Excel)* as the output form and then choose *Standard List*. Start the output and note the differences.
  - a) To select a line, click in any row in the output preview.
  - b) Choose the *Sort in Descending Order* or *Sort in Ascending Order* pushbutton. A dialog box is displayed in which you can choose all fields from the *selection fields* (= all selected *output fields*) that you want to use to sort the output list.
  - c) Select the sorting fields you want and choose *Add sort criterion* (left arrow). Select the relevant field option to determine whether each field is to be sorted in ascending or descending order. Choose *Transfer*.

- d) Choose *Edit* → *Settings*.
  - e) Select *Spreadsheet* as the *Type of output* and press Enter. To start the output, choose *Output*. In answer to the next two queries, enter *Table* and then *Microsoft Excel*.
  - f) Repeat this procedure for the standard list output form.
6. Save this query under the name GR##\_AHQ\_8.
- a) Return to the *InfoSet Query (Query Group HR580##\_)* screen and choose *Query* → *Save As*. On the *Save Query* screen, enter GR##\_AHQ\_8 in the *Name* and *Title* fields and choose *Continue*. Remain on this screen.

## Create a Report with Set Operations

### Business Example

As part of your job, you need to create sets of objects for which data must be output. For this reason, you must know how to create a report with *set operations*.

1. Use *set operations* to output all employees in the **CABB** *personnel area* who do not have a temporary residence. Choose *Edit* → *Settings* and on the *Output* tab page, check that the *Selection Conditions* indicator is not set.



Note:

Choose output fields of your choice (such as *Last Name*, *First Name*, *City*, and *Address Record Type*). Save this query under the name *GR##\_AHQ\_9*.

## Create a Report with Set Operations

### Business Example

As part of your job, you need to create sets of objects for which data must be output. For this reason, you must know how to create a report with *set operations*.

1. Use *set operations* to output all employees in the **CABB** personnel area who do not have a temporary residence. Choose *Edit* → *Settings* and on the *Output* tab page, check that the *Selection Conditions* indicator is not set.



Note:

Choose output fields of your choice (such as *Last Name*, *First Name*, *City*, and *Address Record Type*). Save this query under the name **GR##\_AHQ\_9**.

- a) From the *InfoSet Query* (Query: **GR##\_AHQ\_8**) screen, choose *Query* → *New*.
- b) In the *Create New Query – InfoSet Selection* screen, the *Work area* and *User group* fields default. Choose the *InfoSet PA\_##* and choose *Continue*.
- c) Choose *Extras* → *Show set operations*.
- d) Choose *Edit* → *Settings* and choose the *Output* tab page. Make sure *Use Selection Conditions* is not selected.
- e) In the *Field Group/fields* section, open the *Organizational Assignment* field group and select *Personnel Area* as a selection field. In the *Value* field for the *Personnel Area* field name, enter **CABB**.
- f) In the *Field Group /fields* section, open the *Personal Data* field group and select *Last Name* and *First Name* as output fields.
- g) Choose the *Hit list* pushbutton.
- h) Choose *Store hits* in *Set A* (the first blank pushbutton). This copies the selected employees to *Set A*.
- i) In the *Addresses* field group, select *Address Record Type* as a selection field. In the *Value* field for the *Address Record Type* field name, enter **2** (address record type 2 indicates temporary residence).
- j) Choose the *Hit list* pushbutton.
- k) Choose *Store hits* in *Set B* (the second blank pushbutton). This copies all the employees in personnel area **CABB** who have a temporary residence to *Set B*.
- l) On the *InfoSet Query PA\_##* screen, choose the *Set operations* tab page. Sets A and B are both displayed.



- m) Select *Set A minus set B*, and choose, *Carry out operation*.

The system displays all of the persons who belong to the **CABB** personnel area and do not have a temporary residence. The set of persons is displayed in the *Resulting set* field. You may have to scroll down to see this.

- n) Select *in hit list* and choose *Copy resulting set*.

- o) Switch to the *Selection* tab page.

The hit list now only lists persons who do not have a temporary residence.

- p) Return to the *InfoSet Query (Query Group HR580##)* screen and choose *Query → Save As*. On the Save Query screen, enter GR##\_AHQ\_9 in the Name and Title fields and choose *Continue*. Remain on this screen.

# Generate a Standard Report Using Ad Hoc Query

### Business Example

As part of your job, you need to create special reports for HR master data because your requirements are not met by the standard reports. For this reason, you must know how to define these reports by using Ad Hoc Query.

1. Use *Ad Hoc Query* to start the Employee List standard report (RPLMIT00) for all of the employees in either the **CABB** *personnel area*. Generate the employee list using the query *GR##\_AHQ\_9*.

# Generate a Standard Report Using Ad Hoc Query

### Business Example

As part of your job, you need to create special reports for HR master data because your requirements are not met by the standard reports. For this reason, you must know how to define these reports by using Ad Hoc Query.

1. Use *Ad Hoc Query* to start the Employee List standard report (RPLMIT00) for all of the employees in either the **CABB** personnel area. Generate the employee list using the query *GR##\_AHQ\_9*.
  - a) In the *Field group/fields* section, open the *Organizational Assignment* field group and select *Personnel Area* as a selection field.
  - b) In the *Value* field for the *Personnel Area* field name, enter **CABB** (or **1000**).
  - c) In the *Field group/fields* section, open the *Addresses* field group and deselect *Address Record Type* as a selection field
  - d) Choose the *Hit list* pushbutton.
  - e) Choose *Go to* → *Start report*. In the *Specify Report* screen, in the *Report* field, enter **RPLMIT00** and select *Start via selection screen*.
  - f) Choose *Continue*. This takes you to the *Employee List* selection screen for the report. Choose *Execute*. There is no need to save this query.
  - g) Return to the *SAP Easy Access* screen.

# Create a Query and Export it to Excel

### Business Example:

You need to prepare a spreadsheet of HCM data for use in Dashboard development. Create an Ad Hoc query that returns the following fields: Employee Group, Employee subgroup, Personnel Subarea, Last name, Age, Work Schedule Rule. Restrict your query by Personnel Subarea.



**Note:**

For the purposes of this exercise, this restriction returns multiple Personnel Subareas with the same code but differing names.

1. Create and export a simple ad hoc query. Create an Ad Hoc query based on the HR050 Infoset from the HR050 User Group in the Standard environment.
2. Build the Ad Hoc query to output the following fields: Employee Group, Employee subgroup, Personnel Subarea, Last name, *Age of Employee*, *Work Schedule Rule*. Restrict your query by *Personnel area* CABB. Return data that exists today.
3. Export the results to a spreadsheet that includes the field names as the first column.
4. Manipulate the spreadsheet data into two new ranges on a second worksheet. One range is to describe the (average) age of people by Personnel Subarea, and the other is to describe the number (sum) of people per Work Schedule rule. Sort by Personnel subarea.
5. Create a pivot table in the existing spreadsheet showing the number of people in each Work Schedule Rule.
6. Create a pivot table in the existing spreadsheet showing the average age of employees per Personnel Subarea. Round the age up to a whole number.
7. Insert a new worksheet and copy the two output ranges so they are normal data in cells and no longer a pivot table.



**Note:**

If you do not see a tab beside your sheet 1, choose *Shift F11*. This will create a second worksheet. Click your worksheet at the top left of the excel to see both worksheets. The new worksheet is displayed to the left of the existing worksheet.

8. In the new worksheet, edit the row headers. Rename Row Labels to the field name it represents (Work Schedule Rule and Personnel Subarea). Rename the Count of Last Names field to Number of Employees.

## Create a Query and Export it to Excel

### Business Example:

You need to prepare a spreadsheet of HCM data for use in Dashboard development. Create an Ad Hoc query that returns the following fields: Employee Group, Employee subgroup, Personnel Subarea, Last name, Age, Work Schedule Rule. Restrict your query by Personnel Subarea.



#### Note:

For the purposes of this exercise, this restriction returns multiple Personnel Subareas with the same code but differing names.

1. Create and export a simple ad hoc query. Create an Ad Hoc query based on the HR050 InfoSet from the HR050 User Group in the Standard environment.
  - a) From the *SAP Easy Access* screen choose: *Human Resources > Information System > Reporting Tools > Ad Hoc Query*.
  - b) Choose *Work area Standard Area (client specific)* from the dropdown list.
  - c) Choose *User Group hr050* from the dropdown list.
  - d) Choose *InfoSet HR050* by clicking the gray block to the left of the infoSet.
  - e) Choose *Continue*.
2. Build the Ad Hoc query to output the following fields: Employee Group, Employee subgroup, Personnel Subarea, Last name, *Age of Employee*, *Work Schedule Rule*. Restrict your query by *Personnel area CABB*. Return data that exists today.
  - a) Click the black triangle to open the *Organizational Assignment* folder.
  - b) Select *Employee Group*, *Employee Subgroup* and *Personnel Subarea* by clicking the checkboxes next to the field name under the *Output* column header.
  - c) Select *Personnel Area* by clicking the checkbox next to the field under the *Selection* column.
  - d) Enter the value **CABB** in the *Value* field.
  - e) Close the *Organizational Assignment* folder by clicking the black triangle.
  - f) Open the *Personal Data* folder by clicking the black triangle.
  - g) Select *Last Name* and *Age of Employee* by clicking the checkboxes next to the field name under the *Output* column header.
  - h) Close the *Personal Data* folder by clicking the black triangle.
  - i) Open the *Planned Working Time* folder by clicking the black triangle.

- j) Select *Work Schedule Rule* by clicking the checkbox next to the field name under the *Output and Only Value* from the menu. This flags the Output checkbox.
  - k) Confirm the *Reporting Period*: button shows *Today*.
  - l) Click the *Hit List* pushbutton.
  - m) Click the *Refresh Data* button in the bottom panel to see the real data.
3. Export the results to a spreadsheet that includes the field names as the first column.
- a) Click the *Export* toolbar button above the data.
  - b) Select *Spreadsheet*.
  - c) Choose *Continue*.
  - d) Name the file **Query data ##**.
  - e) If requested, permit the system to create the larger file by selecting *Allow* in the next two dialog boxes.
  - f) Select *Desktop* as the destination.
  - g) Click the *Save* button.
4. Manipulate the spreadsheet data into two new ranges on a second worksheet. One range is to describe the (average) age of people by Personnel Subarea, and the other is to describe the number (sum) of people per Work Schedule rule. Sort by Personnel subarea.
- a) Click the *Personnel Subarea* column header.
  - b) Choose the *Sort & Filter* icon.
  - c) Select *Sort A-Z*. If requested, select *Expand the selection*. Select *Sort*.
  - d) Save the spreadsheet.
5. Create a pivot table in the existing spreadsheet showing the number of people in each Work Schedule Rule.
- a) Click anywhere in the data to be analyzed. Check you have column headings that describe the data. For example, Age of Employee, Personnel Subarea, and WS Rule.
  - b) From the *Insert* menu, select *Pivot table*.
  - c) Click the *Option* button *Existing Worksheet* in the *Create Pivot Table* dialog box.
  - d) Click in a cell to the right of the source data to select the destination for the pivot table.
  - e) Choose the *OK* button.
  - f) Select the checkboxes for *Last name* and *WS Rule*. Both fields appear in the *Row labels* box at the bottom right of the *Pivot Table Field List*.
  - g) Drag *Last name* to the *Values* box as this is what we want to count. The table is displayed.
6. Create a pivot table in the existing spreadsheet showing the average age of employees per Personnel Subarea. Round the age up to a whole number.
- a) Click anywhere in the data to be analyzed. Check you have column headings that describe the data.

- b) From the Insert menu, choose *Pivot table*.
  - c) Choose the *Option* button *Existing Worksheet* from the *Create Pivot Table* dialog box.
  - d) Click in a cell to the right of the source data and below the previous pivot table as the destination for the pivot table.
  - e) Choose the *OK* button.
  - f) Click the checkboxes to select *Personnel Subarea* and *Age of Employee*.
  - g) Age of Employee should be added to the Values column as Sum of Age of Employee at the bottom of the *Pivot Table Field List* column on the right side of your screen.
  - h) Right click the *Sum of Age of Employee* column in the pivot table. Select all values, including *Grand Total*, but not the header *Sum of Age of Employee* in the pivot table.
  - i) Choose *Value Field Settings* from the menu.
  - j) Choose *Average*.
  - k) Click *OK*. The title of the column is automatically changed to Average Age of employee.
  - l) Select the range of average ages (including the Grand Total) with a right click.
  - m) Choose the *Decrease Decimal* toolbar button from the *Home* ribbon until a whole number is displayed.
7. Insert a new worksheet and copy the two output ranges so they are normal data in cells and no longer a pivot table.

**Note:**

If you do not see a tab beside your sheet 1, choose *Shift F11*. This will create a second worksheet. Click your worksheet at the top left of the excel to see both worksheets. The new worksheet is displayed to the left of the existing worksheet.

- a) Click the second tab in the workbook, Insert Worksheet. This creates Sheet 2.
  - b) Select Sheet 1.
  - c) Select the header row and data for one of the pivot tables.
  - d) Choose Ctrl and C to copy.
  - e) Select the empty worksheet (Sheet 2).
  - f) Choose Ctrl and V to paste.
  - g) Repeat steps b to f to copy the second pivot table to the same worksheet as the first.
  - h) Name your second worksheet (Sheet 2) **Data to Plot** by right clicking the name of Sheet 2 and choosing *Rename*.
8. In the new worksheet, edit the row headers. Rename Row Labels to the field name it represents (Work Schedule Rule and Personnel Subarea). Rename the Count of Last Names field to Number of Employees.
- a) Select the field.

- b) Type the new content.
- c) Press *Enter*.
- d) Save and close the workbook.
- e) Choose the *Back* pushbutton. Do not save the query.



### Build a Dashboard

#### Business Example

You need to prepare a dashboard showing the average age of employees by Personnel Subarea and an analysis of Work Schedules. Use the Excel spreadsheet you prepared earlier.

1. Create a simple Column Chart. Start the Dashboard Designer.
2. Import Dashboard Data source.xlsx.
3. Add a Column Chart to the canvas.
4. Add titles and subtitles to the component by editing its properties. The name of the chart is to be **Average Age of Employees** and change the subtitle to **By Personnel Subarea**.
5. Map the Category and Value to the Personnel Subarea and Average age data. You may need to expand the column on the right side of your screen to view all available fields.
6. Map the Personnel Subareas and Ages to plot in the chart.
7. Add a Label component to the canvas. Use the Label component from the Text section of components in the Components panel. Use the text Age and Work Schedule Analysis for CABB.
8. Resize the canvas and preview the dashboard.
9. Create a second chart on the canvas plotting the number of employees per work schedule in a pie chart.
10. Plot the values for the pie chart. Plot the number of employees values.
11. Plot the labels for the Legend. Use the names of the Work Schedule including the blank one.
12. Change the color of any of the pie slices using the Appearance property.

## Build a Dashboard

### Business Example

You need to prepare a dashboard showing the average age of employees by Personnel Subarea and an analysis of Work Schedules. Use the Excel spreadsheet you prepared earlier.

1. Create a simple Column Chart. Start the Dashboard Designer.
  - a) From the *Start* menu, select *Start > All Programs > SAP Business Intelligence > SAP BusinessObjects Dashboards 4 > SAP BusinessObjects Dashboards*.
  - b) Deselect the *Start* page (green toolbar button).
2. Import Dashboard Data source.xlsx.
  - a) Choose *Data > Import* to import the spreadsheet.
  - b) Choose Yes in the Dashboards dialog box.
  - c) Navigate to your desktop, choose your query Query Data ## and the *Open* pushbutton..
  - d) Minimize the *Excel Ribbon* by right-clicking, *Minimize ribbon*. The *Minimize Ribbon* icon is beside the “?” at the top right side of the excel spreadsheet.
3. Add a Column Chart to the canvas.
  - a) Select the second tab in the spreadsheet, *Data to plot*.
  - b) Click the *Components* panel pushbutton on the left side of your screen and choose the *Charts* heading.
  - c) Scroll down and drag the column chart onto the canvas area.
4. Add titles and subtitles to the component by editing its properties. The name of the chart is to be **Average Age of Employees** and change the subtitle to **By Personnel Subarea**.
  - a) With the chart selected, change the *Chart name* property on the right side of your screen from *Columns Chart* to **Average Age of Employees** .
  - b) Change the *Subtitle* from *Sample Sub title* to **By Personnel Subarea**.
5. Map the Category and Value to the Personnel Subarea and Average age data. You may need to expand the column on the right side of your screen to view all available fields.
  - a) In the pivot table, click in the cell containing the text Personnel Subarea.
  - b) Click the red arrow to the right of *Category (X) Axis* in the next property on the right.
  - c) Choose *OK* to confirm.
  - d) Click in the cell containing the text *Average Age of Employee*.

- e) Click the red arrow to the right of *Value (Y) Axis* in the next property on the right.
  - f) Choose *OK* to confirm.
6. Map the Personnel Subareas and Ages to plot in the chart.
  - a) Ensure the *Data property* on the right has an option selection of *By range*. This is the default.
  - b) Select the range of cells containing the personnel subareas and the average ages.
  - c) Click the red arrow to the right of *By Range*. You may have to expand the column to see the fields.
  - d) Choose *OK* to confirm the selected range. The chart is updated with plotted values and labels.
  - e) Resize the chart by dragging the bottom black handle down.
7. Add a Label component to the canvas. Use the Label component from the Text section of components in the Components panel. Use the text Age and Work Schedule Analysis for CABB.
  - a) If necessary, use the *Increase canvas* (Yellow + sign) toolbar button to make room above the chart. Click several times to increase the canvas size.
  - b) Choose the *Components* pushbutton on the left side of your screen and click the *Text* heading bar.
  - c) Drag the *Label* component onto the canvas above the chart.
  - d) Choose the *Enter Text* option button in the *Properties* panel.
  - e) Type **Age and Work Schedule Analysis for CABB**.
  - f) Drag the right edge to resize the text box.
  - g) Choose the *Appearance* button at the top of the *Properties* panel.
  - h) Choose the *Text* tab.
    - i) On the right panel, toggle to *Appearance*. Select the *Text* tab. Make the text bold and 20pt.
8. Resize the canvas and preview the dashboard.
  - a) Resize the chart by dragging the bottom handle downwards.
  - b) Deselect any components by clicking in the white space.
  - c) Choose the *Fit canvas to Components* toolbar button.
  - d) Choose the *Preview* toolbar button and acknowledge the Microsoft Excel message.
  - e) Deselect *Preview*.
  - f) Save the dashboard to your desktop and give it a name of your choice.
9. Create a second chart on the canvas plotting the number of employees per work schedule in a pie chart.
  - a) Choose the *Fit Canvas to Window* pushbutton.

- b) Choose the *Components* pushbutton on the left side of your screen, choose *Charts*, and drag a *Pie chart* onto the canvas next to the column chart.
  - c) Change the chart name of the *Pie chart* in the *Chart* field of the *General Property* panel on the right. Enter the text **Work Schedule Assignment**.
  - d) In the *Subtitle* section, enter **Work Schedule Rule**.
- 10. Plot the values for the pie chart. Plot the number of employees values.
  - a) Select the *Pie Chart* and click the *Data in Columns* option button in the *Data* property.
  - b) Select the values in the *Number of Employees* column. Note: Do not include the column heading nor the total row.
  - c) Click the red arrow to the right of *Values*.
  - d) Confirm the range by clicking *OK*. The chart is updated.
- 11. Plot the labels for the Legend. Use the names of the Work Schedule including the blank one.
  - a) Select the names of the work schedules including the blank one.
  - b) Click the red arrow to the right of *Labels*.
  - c) Confirm the range by choosing *OK*. Make sure the selected range only includes the *Work Schedule Rule* data. If multiple columns are indicated in the *Select a Range* dialog box, adjust the range to only include the column with the *Work Schedule Rule*. After choosing *OK*, the chart is updated with labels.
- 12. Change the color of any of the pie slices using the *Appearance* property.
  - a) Select the *Appearance* property tab.
  - b) Select the *Series* tab.
  - c) Click the color you wish to change and choose a different color.
  - d) Save your dashboard.
  - e) Return to the *SAP Easy Access* screen.

### Generate a Basic List Query

#### Business Example

You work in the HR department of your company and need to search the details of employees and display only certain fields.



Hint:

- Before performing the exercises, access the SAP Query initial screen and *deactivate* the Graphical Query Painter.
- Unless otherwise specified, use the selection fields provided by the *standard selection screen* of the report class. Work in the *standard work area* in your user group *HR580##* with the InfoSet *PA\_##*.

With the InfoSet *PA\_##*, define a query **Q1HR580##** with a basic list, which outputs the last name, first name, nationality, year of birth, and place of residence.

The formatting specifications in the model list are as follows:

|                          |                           |                           |                             |                  |
|--------------------------|---------------------------|---------------------------|-----------------------------|------------------|
| Last name<br>(length 10) | First name<br>(length 10) | Nationality<br>(length 2) | Year of birth<br>(length 4) | City (length 15) |
|--------------------------|---------------------------|---------------------------|-----------------------------|------------------|

1. Define the query for *personnel area* 1000 Hamburg by using the output form *SAP List Viewer*. Ensure that you are working with your user group *HR580##* and the *Graphical Query Painter* is deactivated.
2. Change the query so that the basic ABAP list is surrounded by a frame, and the individual columns are separated from one another by lines. After you have made these changes, execute the query once again.
3. Once you have executed the query, display the *SAP List Viewer*. Set the *SAP List Viewer* to include only employees whose place of residence is Heidelberg.

## Generate a Basic List Query

### Business Example

You work in the HR department of your company and need to search the details of employees and display only certain fields.



Hint:

- Before performing the exercises, access the SAP Query initial screen and *deactivate* the Graphical Query Painter.
- Unless otherwise specified, use the selection fields provided by the *standard selection screen* of the report class. Work in the *standard work area* in your user group *HR580##* with the InfoSet *PA\_##*.

With the InfoSet *PA\_##*, define a query **Q1HR580##** with a basic list, which outputs the last name, first name, nationality, year of birth, and place of residence.

The formatting specifications in the model list are as follows:

|                          |                           |                           |                             |                  |
|--------------------------|---------------------------|---------------------------|-----------------------------|------------------|
| Last name<br>(length 10) | First name<br>(length 10) | Nationality<br>(length 2) | Year of birth<br>(length 4) | City (length 15) |
|--------------------------|---------------------------|---------------------------|-----------------------------|------------------|

1. Define the query for *personnel area* 1000 Hamburg by using the output form *SAP List Viewer*. Ensure that you are working with your user group *HR580##* and the *Graphical Query Painter* is deactivated.
  - a) Choose *Human Resources* → *Information System* → *Reporting Tools* → *SAP Query*.
  - b) To ensure you are working with your user group, choose *Edit* → *Other user group* and in the *Query from User Group HR580##* dialog box, choose **HR580##** and then choose the *Choose* pushbutton.
  - c) To deactivate the *Graphical Query Painter*, choose *Settings* → *Settings*. In the *Settings* dialog box, deselect the *Graphical Query Painter* and choose *Continue*.  
In the *Query* field, enter **Q1HR580##** as the short name of your query and choose *Create*.
  - d) On the *Restrict Value Range* screen that appears, select InfoSet *PA\_##* and the choose *Copy*.
  - e) Enter the title **Q1HR580##** in the *Title* field and choose *Next Screen*.
  - f) On the *Create Query Q1HR580##: Select Field Groups* screen, select the *Personal data* and *Addresses* field groups. Choose *Next Screen*.

- g) On the *Create Query Q1HR580##: Select Field* screen, select the *Last Name*, *First Name*, *Nationality*, and *Year of birth* fields (from the field group *0002 Personal Data*). Choose *Next Page*. Select the *City* field (from the field group *0006 Addresses*). Choose *Next Screen*.
  - h) Choose *Basic List* to access the basic list definition. Do not select any fields as selection fields.
  - i) In the *Line* column, enter **01** for all fields (one-line basic list) and define the column sequence as specified in the table. Choose *Next Screen* twice.
  - j) Specify the length of the fields in the *New* column according to the table. Observe how the output preview changes in the lower part of the screen. Choose *Save*.
  - k) Choose *Query* → *Execute* → *Execute*, enter *Personnel area 1000*, and choose *Execute*.
2. Change the query so that the basic ABAP list is surrounded by a frame, and the individual columns are separated from one another by lines. After you have made these changes, execute the query once again.
    - a) Go back to the *Create Query Q1HR590##: Basic List Line Structure* screen and select the appropriate checkboxes. Choose *Save*.
    - b) Choose *Query* → *Execute* → *Execute* and enter *Personnel area 1000*. In the *Output format* section, choose the *Expand* pushbutton and select *ABAP List*. Choose *Execute*.
  3. Once you have executed the query, display the *SAP List Viewer*. Set the *SAP List Viewer* to include only employees whose place of residence is Heidelberg.
    - a) Choose the *City* column.
    - b) Choose *Edit* → *Set filter* and enter **Heidelberg** as a filter value. Select *Continue*.
    - c) Return to the *Query from User Group HR580##: Initial* screen.

## Generate a List Query with a Control Level

### Business Example

As part of your job, you need to generate reports on all employees within the organization by creating queries with the *SAP Query* tool and using a basic list with one control level.

With the InfoSet *HR580PNPMINI*, define a query **Q2HR580##** with a basic list, which outputs the *Organizational unit*, *Last name*, *First name*, *For period for payroll*, *Total gross amount*, and *Employer SI expenses* fields.

| Payroll records for <text for OU1> |                    |                   |               |                        |
|------------------------------------|--------------------|-------------------|---------------|------------------------|
| Last name (L: 10)                  | First name (L: 10) | For-period (L: 6) | Gross (L: 15) | ER SI Expenses (L: 15) |
| Miller                             | John               | 200412            | 13.000        | 6.000                  |
| ...                                | ...                | ...               |               |                        |
| ...                                | ...                | ...               |               |                        |
| Total for OU <text for OU1>        |                    |                   | 500,000 EUR   | 300,000 EUR            |

Information on the output format (sample list) is as follows:

- Define the *Organizational unit* field as a control level.
  - Display totals for the numerical fields by using the *Organizational unit* field.
  - Adapt the text for the control level and the total for the organizational unit in accordance with the sample list.
  - Adapt the length of the fields in accordance with the sample list.
1. Execute the query for *personnel area* 1000 and the evaluation period December of 2005. Output the query in the *ABAP List*, *SAP List Viewer*, *Display as table* output formats.



## Generate a List Query with a Control Level

### Business Example

As part of your job, you need to generate reports on all employees within the organization by creating queries with the *SAP Query* tool and using a basic list with one control level.

With the InfoSet *HR580PNPMINI*, define a query **Q2HR580##** with a basic list, which outputs the *Organizational unit*, *Last name*, *First name*, *For period for payroll*, *Total gross amount*, and *Employer SI expenses* fields.

| Payroll records for <text for OU1> |                    |                   |               |                        |
|------------------------------------|--------------------|-------------------|---------------|------------------------|
| Last name (L: 10)                  | First name (L: 10) | For-period (L: 6) | Gross (L: 15) | ER SI Expenses (L: 15) |
| Miller                             | John               | 200412            | 13.000        | 6.000                  |
| ...                                | ...                | ...               |               |                        |
| ...                                | ...                | ...               |               |                        |
| Total for OU <text for OU1>        |                    |                   | 500,000 EUR   | 300,000 EUR            |

Information on the output format (sample list) is as follows:

- Define the *Organizational unit* field as a control level.
  - Display totals for the numerical fields by using the *Organizational unit* field.
  - Adapt the text for the control level and the total for the organizational unit in accordance with the sample list.
  - Adapt the length of the fields in accordance with the sample list.
1. Execute the query for *personnel area* 1000 and the evaluation period December of 2005. Output the query in the *ABAP List*, *SAP List Viewer*, *Display as table* output formats.
    - a) On the *Query from User Group HR580##*: Initial screen, enter **Q2HR580##** in the *Query* field and choose *Create*.
    - b) On the *Restrict Value Range* screen that appears, select the InfoSet *HR580PNPMINI* and choose *Copy*.
    - c) In the *Title* field, enter **Q2HR580##**, choose **ABAP List** in the output format screen area, and choose *Next Screen*.
    - d) Select the *Organizational Assignment*, *Personal data*, and *Payroll Results* field groups and choose *Next Screen*.
    - e) Select the *Organizational Unit*, *Last Name*, *First Name*, *For-period for payroll*, *Total gross amount*, and *Employer SI expenses* fields and choose *Next Screen*.

- f) Choose *Basic List* to access the screen for basic list definition.
- g) In the Line field, enter **01** for the *Last Name, First Name, For-period for payroll, Total gross amount*, and *ER SI Expenses* (single-line basic list), and define the sequence provided in the table.
- h) Enter sort position **01** for the *Organizational unit* field. Select the *Total* checkbox for the *gross amount and Employer SI expenses* fields and choose *Next Screen*.
- i) Select the *Text and Total* checkboxes for the organizational unit control level and choose *Next Screen*.
- j) Enter *Payroll records* as an alternative text for the control level. Enter **Total for OU** as the subtotal text.
- k) Choose *Next Screen* twice and enter the field lengths according to the table provided.
- l) Choose *Save*.
- m) Choose *Query* → *Execute* → *Execute*, and start the query for *personnel area 1000*, and a Reporting Period of Other Period from 01 December 2005 to 31 December 2005. Execute the query for the specified output forms.
- n) Return to the query from the *User Group HR580##: Initial* screen.

# Generate a Basic List Query with Two Control Levels

### Business Example

As part of your job, you need to generate reports on all employees within the organization by creating queries with the SAP Query tool and using the basic list with two control levels.

1. Copy the query `Q2HR580##` and rename it `Q3HR580##`.

Define the *Last name* field as a control level, and use the control level to calculate totals.

Output the following text for the control level total, Total for employees.

Execute the query as an *ABAP List output format* for personnel area 1000 for calendar year 2005.

# Generate a Basic List Query with Two Control Levels

### Business Example

As part of your job, you need to generate reports on all employees within the organization by creating queries with the SAP Query tool and using the basic list with two control levels.

1. Copy the query **Q2HR580##** and rename it **Q3HR580##**.

Define the *Last name* field as a control level, and use the control level to calculate totals.

Output the following text for the control level total, Total for employees.

Execute the query as an *ABAP List output format* for personnel area 1000 for calendar year 2005.

- a) On the *Query from User Group HR580##: Initial* screen, enter **Q2HR580##** in the *Query* field. Choose *Query* → *Copy*. In the *Copy a Query* dialog box, enter **Q3HR580##** in the *To* field. Choose *Continue* and choose *Change*.
- b) Choose *Basic List* and on the *Change Query Q3HR580##: Basic List Line Structure* screen, enter sort position **02** for the *Last Name* field. Choose *Next Screen*.
- c) Select the *Total* for the *Last Name* control level. Choose *Next Screen* twice.
- d) Enter **Total for Employee** as an alternative text for the new control level total. Choose *Save*.
- e) Choose *Query* → *Execute* → *Execute* and specify the parameters as instructed in the exercise.
- f) Enter Personnel Area 1000, and choose a Reporting Period, using the dates 01 January 2005 to 31 December 2005. Choose *Execute*.
- g) Return to the *Query from User Group HR580##: Initial* screen.

# Generate a Basic List Query with One Control Level and Statistics

## Business Example

As part of your job, you need to generate reports on all employees within the organization by creating queries with the SAP Query tool and using a basic list with one control level and statistics.

1. Copy the query Q2HR580## and rename it **Q4HR580##**.

Define statistics with which the following data is output:

- Total of evaluation wage type *Gross* per organizational unit
- Total of evaluation wage type *ER SI Expenses* per organizational unit
- Percentage of each total evaluation wage type for each organizational unit
- Average amount within the organizational unit allotted for each employee (for both evaluation wage types)

A sample list (header) is as follows:

| Organizational Units | Total Gross Amount | Share as | Mean Value | Employer SI Expenses | Share as | Mean Value |
|----------------------|--------------------|----------|------------|----------------------|----------|------------|
| (Length: 15)         | (Length: 15)       | %        |            | (Length: 15)         | %        |            |

Execute the query as an *ABAP List* for personnel area 1000 and evaluation period All.

## Generate a Basic List Query with One Control Level and Statistics

### Business Example

As part of your job, you need to generate reports on all employees within the organization by creating queries with the SAP Query tool and using a basic list with one control level and statistics.

1. Copy the query Q2HR580## and rename it **Q4HR580##**.

Define statistics with which the following data is output:

- Total of evaluation wage type *Gross* per organizational unit
- Total of evaluation wage type *ER SI Expenses* per organizational unit
- Percentage of each total evaluation wage type for each organizational unit
- Average amount within the organizational unit allotted for each employee (for both evaluation wage types)

A sample list (header) is as follows:

| Organizational Units | Total Gross Amount | Share as | Mean Value | Employer SI Expenses | Share as | Mean Value |
|----------------------|--------------------|----------|------------|----------------------|----------|------------|
| (Length: 15)         | (Length: 15)       | %        |            | (Length: 15)         | %        |            |

Execute the query as an *ABAP List* for personnel area 1000 and evaluation period All.

- a) To copy your query, on the *Query from User Group HR580##: Initial* screen, double click Q2HR580## choose *Copy*. In the *Copy a Query* dialog box, enter **Q4HR580##** in the *To* field and choose *Continue*. Choose the *Change* pushbutton.
- b) On the *Change Query Q4HR580##: Title, Format* screen, choose *Statistics* to navigate to the *Statistics 1 Structure* screen.
- c) Enter the title **Q4HR580##** and assign sequence numbers and field lengths to the *Organizational Unit*, *Total gross amount*, and *Employer SI expenses* fields according to the information in the table. Enter the reference currency **EUR** for the numeric fields.
- d) Activate the *Average value* and *Percentage share* checkboxes for the *Total gross amount* and *Employer SI expenses* fields, and choose *Save*.
- e) Choose *Query* → *Execute* → *Execute* and specify the parameters as instructed in the exercise, for Personnel Area 1000, and a Reporting Period of Other Period from 01

December 2005 to 31 December 2005. You will need to scroll to the bottom of the query to see the statistics.

- f) Return to the *Query from User Group HR580##: Initial* screen.

## Generate a Basic List Query with One Control Level and Local Fields

### Business Example

As part of your job, you need to generate reports on all employees within the organization by creating queries with the SAP Query tool and using a basic list with one control level and local fields.

Copy query *Q2HR580##* and rename it **Q5HR580##**. Define a local field called *Net* for the new query that outputs the difference (Gross - ER SI Expense). Include the field in the basic list.

1. Execute the query (Personnel area 1000 and period Calendar Year 2005). Output the query once as an *ABAP List*, once as a table, and once using the SAP List Viewer.
2. Define another local field for the query called *Limit*, and set it up to output a green, yellow, or red traffic light depending on the amount in the *Gross amount* field. Include the field in the basic list.

Execute the query (personnel area 1000 and period calendar year 2005). Output the query once as an *ABAP List*, and once using the SAP List Viewer. Use the following attributes to create another local field:

| Condition                 | Formula           |  |
|---------------------------|-------------------|--|
| NET<=1500                 | ICON_GREEN_LIGHT  |  |
| NET>1500 AND<br>NET<=2500 | ICON_YELLOW_LIGHT |  |
| NET>2500                  | ICON_RED_LIGHT    |  |



## Generate a Basic List Query with One Control Level and Local Fields

### Business Example

As part of your job, you need to generate reports on all employees within the organization by creating queries with the SAP Query tool and using a basic list with one control level and local fields.

Copy query **Q2HR580##** and rename it **Q5HR580##**. Define a local field called *Net* for the new query that outputs the difference (Gross - ER SI Expense). Include the field in the basic list.

1. Execute the query (Personnel area 1000 and period Calendar Year 2005). Output the query once as an *ABAP List*, once as a table, and once using the SAP List Viewer.
  - a) To copy your query, on the *Query from User Group HR580##*: Initial screen, select your query **Q2HR580##** and choose *Copy*. In the *Copy a Query* dialog box, enter **Q5HR580##** in the *To* field and choose *Continue*. Choose the *Change* pushbutton. Change the Columns value to 200.
  - b) Within the new query **Q5HR580##**, choose *Next Screen* to navigate to the *Change Query Q5HR580##: Select Field* screen. Activate the short names by choosing *Edit* → *Short Names* → *Switch on/off*.
  - c) Enter short names such as **GRS** and **DED** for the *Total gross amount* and *Employer SI expenses* fields.
  - d) Choose *Edit* → *Local Field* → *Create*.
  - e) In the *Field definition* dialog box, enter a short name of **NET**, field description of **NET**, and heading **Net**. Use the properties to determine that the field has the same properties as the gross amount (**GRS**) field.
  - f) Enter the following calculation formula: **GRS-DED** (use the short names you entered) and choose *Continue*.
  - g) Choose the *Basic List* pushbutton and on the *Change Query Q5HR580##: Basic List Line Structure* screen, assign 1 to the local field line (**Net**), a sequence number (such as 6), and select the *TOTAL* checkbox.
  - h) Choose *Save*. Execute the query with the parameters and output forms specified for Personnel Area 1000 and calendar year 2005.
2. Define another local field for the query called *Limit*, and set it up to output a green, yellow, or red traffic light depending on the amount in the *Gross amount* field. Include the field in the basic list.

Execute the query (personnel area 1000 and period calendar year 2005). Output the query once as an *ABAP List*, and once using the SAP List Viewer. Use the following attributes to create another local field:

| Condition                 | Formula           |  |
|---------------------------|-------------------|--|
| NET<=1500                 | ICON_GREEN_LIGHT  |  |
| NET>1500 AND<br>NET<=2500 | ICON_YELLOW_LIGHT |  |
| NET>2500                  | ICON_RED_LIGHT    |  |

- a) Navigate to the *Change Query Q5HR580##: Select Field* screen. Choose *Edit* → *Local Field* → *Create*. Create another local field named *Limit* with the given attributes. In the Properties screen area, select the Icon radio button. Then choose Complex Calculation.
- b) Enter the data from the table, then choose *Continue*.
- c) On the *Change Query Q5HR580##: Select Field* screen, choose the *Basic List* pushbutton. On the *Change Query Q5HR580##: Basic List Line Structure* screen, assign **1** to the *Limit* local field in the Line field, and an appropriate sequence, such as 7.
- d) Go to the *Change Query Q5HR580##: Field Output Options* screen and change the length of the *Limit* field to **10**.
- e) Choose *Save* and execute the query with the parameters and output forms specified for Personnel area 1000 and Calendar year 2005.
- f) Return to the *Query from User Group HR580##: Initial* screen.

# Generate a Multi-line Basic List

## Business Example

As part of your job, you need to generate reports on all employees within Personnel Area CABB and Personnel Subarea 0002 who were active last year, along with their current address, subtype 1, by creating queries within the SAP Query tool and using a multiline basic list.

1. Define a new query Q6HR580## based on the InfoSet PA\_## with a multiline basic list.

Line 1 must include the First Name (position 1, length = 10), and Last Name (position 2, length = 10) fields. Line 2 must include the Street and House Number (position 1, length = 30) field. Line 3 must include the City (position 1, length = 12), Region (State, Province, County) (position 2, length = 3), and Postal Code (position 3, length = 5) fields. The Address Record Type field should appear as a selection field on the report selection screen.

2. In transaction PA30, select personnel number 540991##, and copy the Address infotype subtype 1. Enter a start date prior to today, but in this year, and change the Street and House No. to reflect data of your choice.

1. Define a new query Q6HR580## based on the InfoSet PA\_## with a multiline basic list.

2. In transaction PA30, select personnel number 540991##, and copy the Address infotype subtype 1. Enter a start date prior to today, but in this year, and change the Street and House No. to reflect data of your choice.

3. In transaction SQ01, execute your query Q6HR580## in accordance with the specifications. You should see the address you selected for your Winnie Chung 540996## in the list.

## Generate a Multi-line Basic List

### Business Example

As part of your job, you need to generate reports on all employees within Personnel Area CABB and Personnel Subarea 0002 who were active last year, along with their current address, subtype 1, by creating queries within the SAP Query tool and using a multiline basic list.

1. Define a new query Q6HR580## based on the InfoSet PA\_## with a multiline basic list.

Line 1 must include the First Name (position 1, length = 10), and Last Name (position 2, length = 10) fields. Line 2 must include the Street and House Number (position 1, length = 30) field. Line 3 must include the City (position 1, length = 12), Region (State, Province, County) (position 2, length = 3), and Postal Code (position 3, length = 5) fields. The Address Record Type field should appear as a selection field on the report selection screen.

2. In transaction PA30, select personnel number 540991##, and copy the Address infotype subtype 1. Enter a start date prior to today, but in this year, and change the Street and House No. to reflect data of your choice.

1. Define a new query Q6HR580## based on the InfoSet PA\_## with a multiline basic list.
  - a) On the Query from User Group HR580##: Initial Screen, enter Q6HR580## in the Query field.
  - b) Choose Create. On the Restrict Value Range screen, select the InfoSet PA\_## and choose Copy. Enter the title Q6HR580##, select ABAP List, and choose Next screen. Select the Personal Data and Addresses field groups, and choose Next screen. Select the fields in accordance with the requirements of this activity, and choose Next screen.
  - c) On the Create Query Q6HR580##: Selections screen, select Address Record Type as a Selection Field. Press Enter. Select the Va Checkbox, so that multiple selection is allowed on the Selection Screen.
  - d) Choose the Basic List pushbutton, and on the Create Query Q6HR580##: Basic List Line Structure screen, enter values for the line and field sequence as instructed. Choose Next screen.
  - e) On the Create Query Q6HR580##: List Line Output Options screen, enter 1 in the Blank Line Aft field for Line 3. This will put a space after each employee's address. Choose Next screen.
  - f) On the Create Query Q6HR580##: Field Output Options screen, enter the appropriate values for the field length in the New column. Select Save.
2. In transaction PA30, select personnel number 540991##, and copy the Address infotype subtype 1. Enter a start date prior to today, but in this year, and change the Street and House No. to reflect data of your choice.

- a) In another session, go to transaction PA30. Enter Personnel No. 540991##. Select Addresses. Select Copy. Subtype 1 is selected, so select Copy again.
  - b) Change the Start date to a date this year prior to today. Change the Street and House No. field to reflect data of your choice. Select Save and acknowledge any system warnings.
3. In transaction SQ01, execute your query Q6HR580## in accordance with the specifications. You should see the address you selected for your Winnie Chung 540996## in the list.
- a) Go back to your session in transaction SQ01. Select Query > Execute > Execute.
  - b) Change the Reporting Period to Other Period. Select Show Person Selection Period. Enter today's date in both of the Data Selection period fields. Enter the first of last year and the end of last year in the Person Selection period fields respectively.
  - c) Enter Employment Status 3, Personnel area CABB, Personnel subarea 0002, and Address Record Type 1.
  - d) Select Execute. Find your Winnie Chung and note that her address is the one that you created this year.

## Set Up a Payroll Infotype

### Business Example

As part of your job, you need to report on payroll results available in the payroll clusters. You need to define and fill a PIT so as to be able to access payroll results and report on those results using Ad Hoc Query and SAP Query.

Create a PIT **96##** for the country grouping *01 Germany*. The PIT must include the two EWTs indicated in the table.

After you have created your new payroll infotype **96##**, fill the infotype using report **RPABRI00** for the personnel area 1000 (Hamburg), and the period Calendar year 2005.

1. Define EWT and enter the following parameters and names:

| Eval.WT     | Cum.Type | Amount or Number | Long Text               |
|-------------|----------|------------------|-------------------------|
| <b>z1##</b> | -        | <i>Amount</i>    | <b>Gr##: Gross</b>      |
| <b>z2##</b> | -        | <i>Amount</i>    | <b>Gr##: Deductions</b> |

2. Assign the following wage types to these EWTs (country grouping 01):

| Entry       | Value                    |
|-------------|--------------------------|
| <i>Z1##</i> | <b>/101 Gross Amount</b> |
| <i>Z2##</i> | <b>/262 Deductions</b>   |

3. Assign these EWT to infotype **96##** and generate the PIT. Remember to activate it.
4. To fill the infotype you just created with payroll results, start report **RPABRI00** for the personnel area 1000 (Hamburg), the period Calendar year 2005, and payroll infotype **96##**.

Check a record of a person to ensure that the PIT was filled with correct results.

## Set Up a Payroll Infotype

### Business Example

As part of your job, you need to report on payroll results available in the payroll clusters. You need to define and fill a PIT so as to be able to access payroll results and report on those results using Ad Hoc Query and SAP Query.

Create a PIT **96##** for the country grouping *01 Germany*. The PIT must include the two EWTs indicated in the table.

After you have created your new payroll infotype *96##*, fill the infotype using report *RPABR100* for the personnel area 1000 (Hamburg), and the period Calendar year 2005.

1. Define EWT and enter the following parameters and names:

| Eval.WT     | Cum.Type | Amount or Number | Long Text               |
|-------------|----------|------------------|-------------------------|
| <b>z1##</b> | -        | <i>Amount</i>    | <b>Gr##: Gross</b>      |
| <b>z2##</b> | -        | <i>Amount</i>    | <b>Gr##: Deductions</b> |

- a) In Customizing, choose *Personnel Management* → *Human Resources Information System* → *Payroll Results*.
- b) Access the *Define Evaluation Wage Types* Customizing activity. In the *System Information* dialog box, choose *Continue*.
- c) In the *Determine Work Area: Entry* dialog box, enter country grouping *01* and choose *Continue*.
- d) Choose *New Entries*.
- e) Make the following entries and selections in the fields for each EWT:

| Eval.WT     | Cum.Type | Amount or Number | Long Text               |
|-------------|----------|------------------|-------------------------|
| <b>z1##</b> | -        | <i>Amount</i>    | <b>Gr##: Gross</b>      |
| <b>z2##</b> | -        | <i>Amount</i>    | <b>Gr##: Deductions</b> |

- f) Save your entries. If a workbench request prompt is displayed, enter any existing request, or create one. To create a customizing request, in the *Prompt for Workbench Request* dialog box, choose *Create* and in the *Short Description* field, enter **GR##** and save your entry. In the *Prompt for Workbench Request* dialog box, choose *Continue*.
2. Assign the following wage types to these EWTs (country grouping 01):

| Entry       | Value                    |
|-------------|--------------------------|
| <b>Z1##</b> | <b>/101 Gross Amount</b> |

| Entry | Value           |
|-------|-----------------|
| Z2##  | /262 Deductions |

- a) Access the *Assign Wage Types* Customizing activity.
- b) In the *Determine Work Area: Entry* dialog box, enter 01 and choose *Continue*.
- c) Choose *New Entries*.
- d) To assign EWT **z1##**, enter the following values:

| Field      | Value                                     |
|------------|---|
| Eval.WT    | <b>z1##</b> (use the input help function) |
| Cumulation | No entry                                  |
| W Type     | /101                                      |
| EWT text   | Entry is made automatically               |

- e) To assign EWT **z2##**, enter the following values:

| Entries    | Value                                     |
|------------|---|
| Eval.WT    | <b>z2##</b> (use the input help function) |
| Cumulation | No entry                                  |
| W Type     | /262                                      |
| EWT text   | Entry is made automatically               |

- f) Save your entries. If a workbench request prompt is displayed, enter any existing request, or create one. To create a customizing request, in the *Prompt for Workbench Request* dialog box, choose *Create* and in the *Short Description* field, enter **GR##** and save your entry. In the *Prompt for Workbench Request* dialog box, choose *Continue*.
3. Assign these EWT to infotype 96## and generate the PIT. Remember to activate it.
    - a) Access the *Set up Payroll Infotypes* Customizing activity. In the *Information* dialog box, choose *Continue*.
    - b) In the *Change View Payroll Infotypes: Overview* table, choose *New Entries* and make the following entries:

| Entry         | Value                       |
|---------------|-----------------------------|
| IT Type       | <b>96##</b>                 |
| Inftyp. Type  | No entry                    |
| Cumulation    | No entry                    |
| Infotype Text | ## Payroll Results          |
| Generated     | Entry is made automatically |
| Active        | No entry                    |



| Entry           | Value    |
|-----------------|----------|
| <i>Infotype</i> | No entry |

- c) Choose the Save pushbutton and then select your *payroll infotype 96##*.
- d) In the dialog structure, double-click the *Assign Evaluation Wage Types* view. Confirm the country grouping *01 Germany* and infotype *96##*.
- e) Choose *New Entries* and make the following entries:

| Entry           | Value                                     |
|-----------------|---|
| <i>IT</i>       | <b>96##</b> (use the input help function) |
| <i>Eval.WT</i>  | <b>Z1##</b> (use the input help function) |
| <i>EWT text</i> | Entry is made automatically               |

- f) Repeat this step for EWT **Z2##**.
  - g) Choose *Save and Generate payroll infotype*. In the *Create 96## infotype*, dialog box choose *Yes*. In the *Create Object Directory Entry* dialog box, choose *Local Object*. Select *Continue*. Select *Continue* again in the *Informational message*
  - h) Go back to the *Change View Payroll Infotypes: Overview* screen, choose your *96##* infotype and select *Active*.
  - i) Save your entries.
4. To fill the infotype you just created with payroll results, start report **RPABRI00** for the personnel area 1000 (Hamburg), the period Calendar year 2005, and payroll infotype **96##**.

Check a record of a person to ensure that the PIT was filled with correct results.

- a) Access the ABAP Editor. To do so, choose *System* → *Services* → *Reporting*. Enter **RPABRI00** in the *Program* field and choose *Execute*. In the *Fill Payroll Infotypes* screen, enter the following entries:

| Entry                 | Value   |
|-----------------------|---|
| <i>Other period</i>   | Enter the begin and end dates for the calendar year 2005. |
| <i>Personnel area</i> | <b>1000</b>   |
| <i>Infotype</i>       | <b>96##</b>   |



**Hint:**

If the filled *Personnel Area* is not displayed on the report selection screen, choose *Further selections* and choose *Personnel Area* in the *Selection Options* column. Move this selection to the *Selection Fields* column using *Select*. Choose *Continue*.

Choose *Execute*.

**b)** Choose *Execute*.

**c)** To test the infotype, open the HR master data maintenance transaction in one session and display the records of infotype 96## for personnel number 1100.

In the second session, choose *System* → *Services* → *Reporting* to start the report to display payroll results (H99\_DISPLAY\_PAYRESULT). Enter the relevant personnel number and display payroll results for the period concerned. Check the amounts from table RT.